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## CERTIFICATE OF ORIGINAL WORK

This is to certify that B.China Venkateswar Rao of the University of Allahabad, planned his study, carried out the survey work, analysed the data and prepared this thesis, on "Economics of Production and marketing of groundnut and Problems faced by small farmers in un-irrigated areas of Chaurugunda Mandal, Khannan, District, A.P."

These he did in part fulfilment of the requirements of the Master of Science in Agricultural Economics degree of the University of Allahabad.

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## CERTIFICATE OF ACCEPTANCE

This thesis attached hereto entitled, "Economics of Production and marketing of groundnut and Problems faced by small farmers in un-irrigated areas of Chandragunda Mandal, district Khamsan, Andhra Pradesh", is prepared and submitted by B.China Venkateswar Rao, in part fulfilment of the requirements for the degree of Master of Science in Agricultural Economics is hereby accepted.

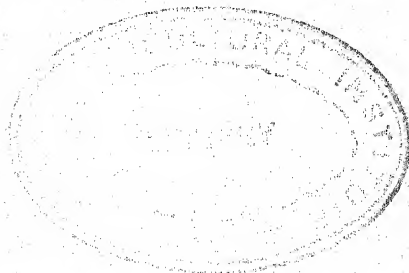
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# CHAPTER I



## INTRODUCTION

The situation of agriculture in India has undergone a rapid change in last two decades. Investment in agricultural sector both in public sector and private sector has risen. Agricultural production, in general has achieved reasonable growth rate. But the growth rate has not only to maintained, but accelerated and fluctuations in agricultural production are to be maintained. The efforts are already underway to evolve location specific technologies, transfer them to farmers fields and assure input supply to farmers in right time, place and quantity.

Agriculture is the backbone of India. It contributes the share of 45-50% in national income. The main agriculture products are cereals, millets, pulses, oilseeds, fibre crops, sugar crops, fodder crops, vegetables and fruits. Among these oilseed crops occupied a very important place. The main oil seed crops are groundnut, sesamum, castor, rapeseed, mustard, linseed, sofflower and sunflower. Cotton and other crops play a minor role in the oil seed production.

India is the third largest producer of oil seeds in the world. It ranks first in the production of groundnut, oil seeds contribute about 6 percent of Indian Gross National Product and about 9 percent of value of the all agriculture commodities produced in the country. The production of the oil seeds in India was very low for the last three decades. This is the important point to the present researcher to



increase the production of oil seeds by various methods.

Oil seed crops have been the back bone of agriculture economy of India from time immemorial. Today these crops are cultivated on about 17.5 million hectares, with a total production of nearly 14 million tonnes. The aim of the seventh five year plan was to produce 18 million tonnes oil seeds. This area constitutes approximately one-tenth of the total cultivated area in India. On the oil seed map of the world, India occupies a prominent position both in regard to acreage and production.

The oils of various crops are utilized for different purposes, such as for cooking, paints, varnishes, lubricants, soaps, hair oils, medicines etc. Soyabean is also a important source of oil. But it is mainly cultivated as a pulse crop. The oil cakes obtained after the extraction of oil is a valuable organic manure and animal feed also. By increasing the importance of oil seed crops, the acreage and production of oilseed crops increase from year to year. At the end of first five year plan the production of oil seeds 5.6 million tonnes and now production of oil seed crops were 14 million tonnes.

The oil seeds development programme in the country is being implemented through 'National Oil Seeds Development Project,' sanctioned during 1984-85. Considerable progress has been achieved in the field of oil seeds development. At the end of fifth plan (1979-80) oil seeds were cultivated over an area of 169.4 lakh hectares which expanded 198.5 lakh hectares in 1984-85. Similarly, the production is also increased from

87.4 lakh tonnes in (1979-80) is 131 lakh tonnes in 1984-85, exceeding the target of 130 lakh tonnes. productivity also rose to 516 per hectare to 660 kg per hectare during the same period.

Table 1.1 Gross area and production under oil seed crops.

Year	Gross Area (mha.)	Production (mt.)
1970-71	16.64	9.63
1975-76	16.92	10.64
1980-81	17.60	9.37
1981-82	18.91	12.08
1982-83	17.75	10.00
1983-84	18.69	12.69
1984-85	18.92	12.95
1985-86	19.02	10.83
1986-87	18.69	11.45

Economic Survey of India 1987-88.

The low yield of oil seeds in India is due to lack of high yielding varieties suitable for dry farming conditions, risk of crop failure due to vagaries of monsoons, lack of credit facilities, unremunerative prices, lack of marketing facilities and also due to lack of irrigation facilities. The main steps for increasing the oil seeds are evaluation of better varieties, cultural practices and Pest control measures. The target of oil seeds production of 1986-87 and terminal year of seventh five year plan are 148 to 180 lakh tonnes respectively.



Table 1.2 Area under groundnut and yield per hectare

Area : In million hectare  
Yild : Kg/ hectare

Year	Area	Yield per hectare
1970-71	7.33	834
1975-76	7.22	935
1980-81	6.80	736
1981-82	7.43	972
1982-83	7.22	732
1983-84	7.54	940
1984-85	7.17	898
1985-86	7.12	719
1986-87	7.5	847

Economic survey of India 1987-88.

Keeping in the view, the new strategy for the seventh plan, NODP ( National Oilseeds Development Project ) has been modified from 1986-87. under the revised project district action plans have been prepared for 150 selected districts on the basis of constrain analysis and measures necessary to overcome them. Funds proposed under the 'National Oilseeds Development Project' will be used for strengthening the existing level of services, incentives to the farmers and input and credit availability in selected districts.

The new component of programme are ; (1) Production of breeder's seed and foundation seed. (2) Production of certified seed through village scheme programme (3) Distribution of input-

kits (4) Distribution of plant protection chemicals and equipments (5) Transfer of technology through field demonstrations (6) Supply of improved farm implements (7) Assistance for soil testing (8) Market and Price support (9) Production of rhizobium culture and (10) Provision of support/staff for the project. Thus the main aim of the Government was to increase the oil seed production.

Among the oil seed crops, Groundnut (*Arachis hypogaea*) accounts for more than 40 percent acreage and 60 percent production in the country. Groundnut is also known as peanut, earthnut, monkeynut, goober, pinda and manillanut. Groundnut has first place in the cultivation of oil seed crops in India. The area under groundnut is merely 5% of the total cropped area India, yet it accounts for 45% of World Production of groundnut.

The main groundnut growing countries are India, China, U.S.A. and West Africa. India occupies the first place both in regard to acreage and production. In India, the main growing states are Gujarat, Andhra Pradesh, Karnataka, Tamilnadu and Maharashtra. The other important states where it is grown are Madhya Pradesh, Rajasthan, Uttar Pradesh and Punjab.

Groundnut kernels have about 25.3 percent protein which is 1.3 times higher than meat, 2.5 times higher than eggs and 8 times higher than fruits. The oil content of Kernels ranges from 40 to 50 percent. The groundnut kernels are used in roasted form for eating purposes. Peanut milk, butter, curd and chatani is prepared from raw peanut kernels.



Table 1.3 Area and Production of groundnut

Crop	Area - in lakh hectares Production- in lakh tonnes				
	1980-81	1982-83	1983-84	1984-85	1985-86
Groundnut :					
(1) Area	68.01	72.15	75.39	71.68	73.11
(2) Production	50.05	52.82	70.86	64.36	55.47

Footnotes - India '86'.

**INDUSTRIAL USES**

Groundnut oil is extensively used for cooking purposes in Andhra Pradesh, Karnataka and other states, either raw or refined. The oil is also used for preparing vegetable oil (vanaspati). Low quality oil is used for making soaps. The beauty aids, shaving cream, cold cream and panades are also prepared from groundnut oil. It is used for medical aids such as for preparing liniments, plasters and ointments. For cattle it is used in making nutritive, laxative and emollient. The Ardein prepared from groundnut is used for milch cattle and it is observed that with the Ardein there is an increase of 35% in milk especially in case of cows. Activated carbon is prepared from groundnut shells. It is good foreign exchange earner.

### USE OF GROUNDNUT CAKE

The residue left after oil extraction from groundnut kernels are known as cake. The cake analysis for 8% N, 1.4%  $P_2O_5$ , 1.2%  $K_2O$  makes a good organic manure. Groundnut cake is also a nutritive valuable cattle feed for working animals and milch cattle. The cake flour makes a well balanced and palatable food for infants and adults. The flour blends easily with wheat and other flours and is consequently used by bakers, confectioners, candy makers and ice-cream manufactures.

Groundnut is a member of legum<sup>m</sup>ineae family and as its character has tap root system. A good crop of one hectare adds 1-2 tonnes organic matter/ha to the soil. The root nodules fix the atmospheric nitrogen into the soil through which not only groundnut crop is benefitted but with the residual fertility the succeeding crop is also greatly benefitted. Thus groundnut occupied a very important role among the oil seed crops.

### JUSTIFICATION

Groundnut is the major oil seed crop in the country because it occupies 40% of the total area in oil seeds. The groundnut is used for several purposes when compared to other oil seed crops. The yield of groundnut per hectare is low in India, because of certain problems in the cultivation, so it is very important study to analyse the problems and make suggestions to improve the yield of groundnut. The study includes cost structure, net profit, marketing channels and problems faced by small farmers.

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This study gives some suggestions to obtain optimum yield thereby the profits. This will be a guideline for the further research.

#### A BRIEF ACCOUNT ON THE CULTIVATION OF GROUNDNUT

The groundnut ( *Arachis hypogaea* ) belongs to the leguminosae family. It is originated in Brazil in South America. Groundnut is essentially a tropical plant. It requires a long and warm growing season.

Groundnut thrives best in well drained sandy and sandy loam soils, as light soil helps in easy penetration of pegs and their development and also harvesting. There are three types of varieties in groundnut, they are bunch type, spreading and semi-spreading type. Groundnut is a deep rooted crop but looking to its underground pod forming habit, deep ploughing should be avoided. One ploughing with soil turning plough followed by two harrowings would be sufficient to achieve a good surface tilth upto 12-15 centimetre depth. For seed purpose, pods should be shelled by hand one week before sowing. Generally the crop sown in the month of June. This crop is also sown in Rabi season in the southern part of the country. 80-100 kg of seeds per hectare is required to bunch type and 60-80 kg for spreading type. Row to row distance should be 30-40 cm for bunch type and 45-60 cm for spreading type. 15-20 centimetre is the plant to plant distance.



General requirements of the manures and fertilizers are 10-15 tonnes farm yard manure, 20-40 kg nitrogen, 50-60 kg  $P_2O_5$  and 30-40 kg  $K_2O$  per hectare. Normally, one or two hand hoeings and weeding should be done depending upon the soil type and extent of weed infestation.

By adopting the modern agronomical practices, it will be possible to obtain about 15-20 quintals of pods per hectare from bunch type and 20-30 quintals per hectare from spreading types.

#### OBJECTIVES

The main objectives of the study were as follows :

1. To calculate the cost of cultivation of groundnut.
2. To calculate the net profit per hectare.
3. To study the existing market channels in the selected area.
4. To identify the problems faced by small farmers and suggest measures for its improvement.

#### HYPOTHESIS

1. The cost of cultivation per hectare is high for the large farmers as compared to medium and small farmers.
2. The utilization of family labour decreases with increase in the size of holding and hired labour increases with increase in size of holding.

3. Several problems faced by small farmers such as lack of irrigation facilities, lack of credit facilities, vagaries of monsoons, lack of good seeds etc. in the cultivation of groundnut.

## **CHAPTER II**



## REVIEW OF LITERATURE

Review of literature is an important part of thesis. The purpose of review of literature is to review the past work done in the area of study by the researcher. Excepting studies conducted in agronomy, relatively few studies have been undertaken on the economic aspects of groundnut production, marketing and problems faced by farmers under rainfed conditions. A brief review of the important observations made by eminent authors is given below.

Faruqi,<sup>1</sup> tested the correlation between prices and farmer's choice of products on wheat, rice, groundnut, cotton and coarsegrains. Cash crops like groundnut and cotton seem to be very sensitive to relative profitability and prices. During the period under review, groundnut has shown an increase of 231 points and cotton 92 points in their acreage. Prices of groundnut and cotton have also shown an increase of about 24 and 7 points respectively.

Sharma and Sharma,<sup>2</sup> this study was based on "Marketable

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1. Faruqi, N.Y.Z., "Correlation between prices and farmer's choice of Products," Agricultural Marketing, Vol. VIII, No. 2 July 1965, pp. 1-3.
  2. Sharma, A.N. and Sharma, V.K., "Marketable surplus in relation to farm size," Agricultural marketing, Vol. XII, No. 3 October 1969, pp 8-10.

surplus in relation to farm size." He concluded that the size of holding increases the marketable surplus also increases. The increase in marketable surplus is more than proportionate increase in the size of holding. Crops like lahi, sugarcane and paddy grown in that area primarily for the market. The percentage of marketable surplus also increases as the holding goes up.

Mahender Reddy,<sup>3</sup> has tested whether farmers in a particular region are responsive to the changing circumstances viz., changes in relative price level, relative yield and rainfall. He has selected groundnut for this study. As expected the coefficients of relating price and yield have the right sign and statistically significant. From this we may conclude that farmers in the area under study are responsive to relative price changes and relative yield changes.

Parkash Mehta,<sup>4</sup> studied the impact of price changes on area, production and productivity. He concluded that the

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3. Mahender Reddy, J., "Estimation of farmer's supply response. A case study of groundnut. Indian Journal of Agricultural Economics, Vol. XXV. No. 4, October-December 1970, pp 57-63.
  4. Parkash Mehta, "Impact of Price changes on area, production and Productivity." A case study. Agricultural marketing, Vol. XIV, No. 1, April 1971, pp 7-10.



area, production and productivity were highly responsive to price variations. Therefore, in order to have a sustained level of output, the measures of support prices are really recommendable.

Singh and Pandey,<sup>5</sup> made study on resource use efficiency in a dry farming areas. The cropping pattern and yield performance are examined on 30 farms selected according to proportional distribution from a block in Banda district of U.P., where the crops are mainly rainfed. The data were collected from the holdings for 1969-70. It is observed that the farmers are inefficient and irrational in the use of most of the farm resources. Due to the absence of alternative employment opportunities on the farms, there is excessive use of human labour in agriculture. Manures and fertilizers and irrigation resources are inadequate in use. Adequate provision of non-farm employment, credit and development of assured irrigation facilities should be made to raise the farm productivity and standard of living of farmers in the region.

Singh and Singh,<sup>6</sup> gave an account of problem of dry

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5. Singh, L.R. and Pandey, U.K., "Resource use efficiency in a dry farming area of Banda district of Uttar Pradesh," *Indian Journal of Agriculture Economics*, Vol. 26 No.2, pp. 296-299, 1971.
  6. Singh, B.S. and Singh, S.P., "Problems of dry farming in Agra district of Uttar Pradesh," *Indian Journal of Agriculture Economics*, Vol. 26, No. 2, pp 370, 1971.

farming in their study. Referring to problems they mentioned that the problem area for dry farming is the area which receives rainfall in between 400 mm to 1000 mm and has less than 25% of the same area under irrigation. Thus dry farming is a programme of good soil management and improved practices designed to conserve all available water for crop production in the area of low, uncertain and variable rainfall. Out of total 14 community development blocks in Agra district, five have less than 25 percent and only five have 50 percent or more irrigated area. Economic returns on irrigated holdings in terms of total output, net income, farm business income is 133.7, 126.9 and 137.5 percent respectively higher than that on irrigated holdings. The following efforts were needed to achieve a break through in agricultural production in dry farming areas; (i) every efforts must be made to utilize the available irrigation potential in the area (ii) evolution of rainfed high yielding varieties of crops is highly desired (iii) crop insurance practices should be introduced, and (iv) as yield potential of this area is low, efforts should be made to minimise the cost through judicious mechanization.

Sampath and Ganesan,<sup>7</sup> in their study gave an account

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7. Sampath, R.K. and Ganesan, J., "Economics of dry farming in Tamil Nadu," Madras Institute of Development Studies (1972), pp. 128-130.



of economics of dry farming in Tamil. The object is to assess the importance of a renovated system of dry farming, to review the economics of system and to suggest programmes to increase incomes from dry land farming in Madras state, where 60 percent of cultivated land is under dry land farming and 50 percent of all farms in the state are dry. The study suggests that adequate provision of non-farm employment credit and development of assured irrigation facilities should be made to dry farmers.

Mercier and Ribiere,<sup>8</sup> in their study gave a rational approach to the economics of dry farming. The main limiting factor besides unpredictable rainfall, is the traditional attitude consisting of yearly trials and errors, to avoid worst consequences of the states and farmer's choices, with the existing rainfall. For the above reasons, the development of such tract ( Anantapur ) will only be obtained through co-ordination and conjunction of all the states efforts and no such planning can be made without submitting the possible actions to this terrible judge. The aim of this paper is to show that building up of this "Regional Rainfall simulation" is possible and what information it can bring to the men incharge of this dry areas development. The paper gives the statistical and

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8. Mercier, J.R. and Ribiere, G., "Study of the economics of dry farming areas in Andhra Pradesh through rainfall simulation," Indian Journal of Agricultural Economics, Vol. 26, No. 2, pp. 369-370, 1973.

physical part of the proposed model and a quick explanation of the part played by rainfall in 1970 on the yields of the crop at Reddipalli farm of the Indo-French Agricultural Project.

Sahabhey,<sup>9</sup> studied the marketing problems of oil seeds in the country. They have discussed the marketing channels, price spread, marketing costs and role of processing and indicated that for the promotion of non-traditional oil seeds like rice bran oil, soyabean oil and watermelon, seed oil generating marketing pull is very necessary.

Patel,<sup>10</sup> worked out on the economics of production of groundnut. It shows that the per hectare average cost 'A' for the production of groundnut was Rs. 561.22 for improved variety and Rs. 418.79 for local variety, for irrigated groundnut it was Rs. 919.75 for improved variety and Rs. 575.78 for local variety. The average cost of production of groundnut crop was Rs. 485.19 for dry and Rs. 833.85 for irrigated groundnut shows that irrigated groundnut utilized 71.86 percent more inputs as compared to dry crop. The average cost 'C' of irrigated groundnut per hectare came to Rs. 1,200.09 as compared to

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9. Sahabhey, "The marketing problems of oil seeds in the country." *Southern Journal of Agricultural Economics*, 1973, Vol. 5, No. 1, pp. 141-145.

10. Patel, I.J., "Economics of production of groundnut." *Agricultural marketing*, April-July 1973, pp. 12-19.



Rs.791.43 for dry groundnut.

It was observed that there is a perceptible and consistent trend toward declining average cost with increase in size of holding in both irrigated and dry groundnut due to economics of scale.

Dhongade, P.M.,<sup>11</sup> selected groundnut area for investigation marketing behaviour of farmers and factors affecting it. A general conclusion emerging from study is that bigger farmers having larger volume of groundnut production are able to withhold their produce beyond peak period when prices are low and sell the same when prices are favourable. While small farmers having relatively lower marketable surplus sell larger proportion of their produce during the peak period i.e. immediately after harvest. Farmers having no debts, more cereal production and more cash income are able to take advantage of better prices after the peak period.

Rama Pavaskar,<sup>12</sup> studied the future market and price stabilisation. The analysis of elasticity of expectations worked out in this paper, confirms the traditional belief

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11. Dhongade, P.M., "Marketing behaviour of farmers and factors affecting it," *Agricultural Marketing*. Vol. XVII, No. 2, July 1974, pp 1-6.
  12. Rama Pavaskar, "Future market and Prices Stabilization," *Indian Journal of Agriculture Economics*. Vol. XXX, No.1, January-March 1975.

that free and competitive speculation in commodity exchanges reduces the price fluctuations in the ready market. In both groundnut and castor seed, the futures markets tended to stabilize the ready prices more often than not. The analysis did not disclose any characteristic seasonal pattern in the price stabilizing influence of the future market. Nevertheless, such influence appeared some what stronger during the lean marketing months of the year. Empirical evidence also shows that futures market does not depress ready prices as is often believed. The truth is perhaps just the opposite.

Rahese,<sup>13</sup> studied the relative profitability and cost of production of two major oilseed crops, viz. groundnut and rapeseed, mustard. They pointed out that improved inputs account for less than 20% of the total cost and the value of productivity of both these crops is far below that of cereals. Therefore, they have concluded that for promoting increased allocation of area of oil seed crops, appropriate pricing policies has a crucial role to play.

Essang,<sup>14</sup> pointed out the most significant effects of oil production is the change in official and academic attitude

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13. Rahese, S.K., "The relative profitability and cost of production of two major oil seed crops," *World Agricultural Economics and Rural Sociology Abstracts*, August 1976, Vol.13, No.v, p.228.
  14. Essang, S.M., "Impact of oil production on Nigerian agriculture policy." *Indian Journal of Agricultural Economics*, Vol. XXXII, No.2, April-June 1977, pp.24-32.



with regard to the appropriate role of agriculture in Nigeria's economic development. In this paper, it is shown that oil production has dramatically increased the revenue and foreign exchange resources of the Nigerian government. Another important effect of oil production is the changing character of government intervention in agriculture production.

Abalu, G.O.<sup>15</sup> A case study of groundnut supply in northern Nigeria. This paper reports an attempt to assess the direction in which groundnut farmers in northern Nigeria respond to the various uncertainties. They face and the manner in which price changes are likely to produce the intended effect on the rate of growth of output to farm value. A selected number of supply response models are applied. The results suggest that farmers are price responsive and that groundnut growers responses are consistent with economic theory. The results also imply that although groundnut farmers are price responsive, the incentive effect on groundnut vis-a-vis other crops competing for the same productive resources is not very strong.

Report on<sup>16</sup> problems of marketing of small farmers in

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15. Abalu, G.O., "A case study of groundnut supply in Northern Nigeria." *World Agricultural Economics and Rural Sociology Abstracts*, Vol. 19, June 1977, No. 6, p. 359.
  16. U.N., Economic and Social Commission for Asia and the Pacific. Problems of marketing of small farmers in the ESC AP region. *Economics Bulletin for Asia and the Pacific* (1975) *World Agriculture Economic and Rural Sociology*, Vol. 19, No. 1, January 1977.

ESC AP region.

Three conclusions are drawn from this analysis (1) small farmers clearly lack technical facilities that contribute to the development of an efficient marketing system (2) marketing can not be separated from other problems; farmers need integrated assistance (3) not enough is known about market structure. Recommendations are made, largely involving Governments role in improving infrastructure removing constraints on small farmer production and promotion of joint marketing arrangements.

Shwedel,<sup>17</sup> suggested the following measures for the marketing problems of small farmers (1) technical assistance to farmers and assemblers to develop their marketing skills and to introduce them to alternative arrangements for organising trade (2) information programmes which provide farmers and merchants with the type of data needed for effective decision making such as price and outlook information (3) capital improvements intended to improve the technical efficiency of those operating within the marketing system, as well as infrastructural investments designed to stimulate improved performance. (4) groupaction programmes whereby small farmers would be small farmers would be organised, for example in co-operatives.

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17. Shwedel, S.K., "Marketing problems of small farm agriculture: A case study. Dissertation abstracts international (1978), p. 1549. World Agricultural Economics and Rural Sociology. Vol. 20, No. 10, p. 681.



bargaining associations etc.

Mruthyunjaya,<sup>18</sup> studied the enterprise budgets for bajra, jowar, cotton, wheat and groundnut in Bijapur taluk (Karnataka). It can be seen that groundnut gave the maximum net income (Rs. 268.87) followed by Jowar (Rs. 234.20), Cotton (Rs. 114.72), Wheat (Rs. 86.76) and Bajra (Rs. 14.33). However, a rupee spent in the cultivation of jowar gave back the maximum return of Rs. 2.53 followed by groundnut (Rs. 1.82), cotton (Rs. 1.57), wheat (Rs. 1.23) and it was least in case of bajra (Rs. 1.09).

Modalia,<sup>19</sup> studied the adoption of recommended practices in the cultivation of groundnut. The objective of the paper was to study the extent of adoption and non adoption to recommended practices by farmers in the cultivation of groundnut. To study the reasons for non-adoption of recommended practices of groundnut cultivation. The study was confined to Amrati district which is an important groundnut producing district in Gujarat.

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18. Mruthyunjaya, "Enterprise budget of dry land crops and policy implications." Research notes. Indian Journal of Agricultural Economics, Vol. XXXVI, No. 1, January-March 1981.

19. Modalia, U.K., "The adoption of recommended practices in the Cultivation of groundnut." Indian Journal of Agricultural Economics, Vol. XXXI, Dec.- Jan. 1981, No. 4, p. 221.



Uma Kapila,<sup>20</sup> examined a case study of groundnut. The analysis of farm management data of only two districts is hardly sufficient to draw any conclusions at the national level though it reveals some interesting facts. Irrigated groundnut is relatively less profitable than irrigated cotton and perhaps paddy also. In the final conclusion the study has emphasized the role of irrigation in raising future supply of ground nut. As regards the price policy, it concludes that in order to derive full benefit of economic incentives due emphasis should be laid on measures for correcting market imperfections.

Patel and Arun,<sup>21</sup> studied two major problems of oil seeds production in India, which have engaged the attention of the scientists and economists working in the field of agriculture or what is the potential of oilseeds production that can be attained in the near future? What are the factors which hold back the production growth. Particularly growth in the productivity of oil seeds in India? In this context the paper examines the problems of groundnut cultivation in Gujarat.

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20. Uma Kapila, "A case study of groundnut, " Oil Seeds Economy of India, 1982, pp XXIII + 264.

21. Patel and Arun, "The major problems of oilseed production in India, " Indian Journal of Agricultural Economics. Vol. XXXVII, July-Sept., 1982, No. 3, p. 218.

Santsarup and Pandey,<sup>22</sup> had conducted a study on "growth rates of area production and productivity of five major oilseeds, in important oil seed growing states. It also examined the production potential of the main oil seed crop groundnut, and studied the factor responsible for low productivity of oil seeds.

Nareppanavar and Bharadwaj,<sup>23</sup> concluded the following points on "Farmers and Intermediaries shares; A study of groundnut during 1962-63 to 1980-81.

- (i) Whenever there was an increase in the wholesale oil price, the increase in the farm harvest price was much smaller than the increase in the retail oil price. Thus the suffers are farmers and consumer.
- (ii) The farmer's share has been reduced from 61 percent in 1962-63 to 52.67 percent in 1980-81 and his average share was 57.70 percent for the period.
- (iii) The shares of intermediaries in the consumer's rupee and also their receipts per kg. oil have not changed uniformly. The miller was increased his share almost

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22. Santsarup and Pandey, R.K., "Growth rates of area production and productivity of major oil seeds." A case study. Indian Journal of Agricultural Economics, Vol. XXXVII, Nov.-Dec., 1982, No. 3, pp. 211-213.

23. Narappanavar, S.R. and Bharadwaj, U.P., "Farmers and intermediaries shares; A study of groundnut during 1962-63 to 1980-81." Indian Journal of Agricultural Economics, Vol. XXXVIII, No. 2, April-June, 1983.



continuously at the cost of farmer, the retailer and the wholesaler of groundnut kernel.

Thus the present structure of oils and oil seeds market is largely controlled by the oil miller/trader and does not take care of the interest of farmers and consumers.

Umashankar Patnaik,<sup>24</sup> has studied the groundnut farm economy in alternative market channels in the Rayalaseema Region of Andhra Pradesh. The five major identified channels are (1) Farmers selling through village merchants (2) Farmers selling through village brokers (3) Farmers selling through licensed commission agents (4) Farmers selling directly to decorticators (5) Farmers selling directly to co-operative oil mill.

He pointed out four fold prime objects in enforcing the market regulations in Indian agriculture are, (i) To stabilise price movements for agriculture products (ii) To assure a fair price for products (iii) To provide an ethical environment for proper trade practices by prohibiting and practices in the market and (iv) To arrange for a common place for the seller and the buyer to meet.

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24. Umashankar Patnaik, "Economic performance of groundnut marketing channels: A case study of Rayalaseema region of Andhra Pradesh," Indian Journal of Agricultural Economics, Vol. XL, No.1, January-March 1985, pp. 26-35.

Narasimham, Von Oppen, M and Rao,<sup>25</sup> tested the variability in groundnut prices is a function of customer preferences for various quality characteristics. Groundnut buyers always prefer characteristics reflecting better oil quality and quantity. These estimates reveal that groundnut consumers have a strong preference for groundnuts having larger percentage of whole seeds, i.e., mature and undamaged seeds. As the percentage of shrivelled seed or damaged seed to whole seed increases, groundnut prices decline significantly.

Report (1981-84)<sup>26</sup> on studies in the economics of farm management on the problems of increasing groundnut production in north and south districts of Tamilnadu. The sample consisted of 400 groundnut growing farmers selected from north and south Arcot districts on the basis of stratified random selection.

The main findings -

- (1) There were year to year fluctuations in land utilization.
- (2) Due to unfavourable monsoon conditions.

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25. Narasimham, N.V., Von Oppen, M. and Parthasarathy Rao, P.. "Consumer Preference for groundnut quality." *Indian Journal Agricultural Economics*, Vol. XL, No. 4, Oct.-Dec. 1985, pp. 524-35.

26. Report (1981-84), *Agriculture Situation in India*, July 1987, pp. 291-299.



- (3) Shift from groundnut to paddy crop because of availability of excess water.
- (4) In the selected regions, there were various as regards source of irrigation.
- (5) Due to the Pest problem.
- (6) There was a declining trend in the yield rates for groundnut. This is due to intermittent rains. And the survey found many problems on the cultivation of groundnut.

## **CHAPTER III**




# MATERIALS AND METHODS

## NATURE AND PURPOSE OF THE ENQUIRY

The enquiry was conducted to study the economies of groundnut production and marketing under rainfed conditions with special reference to problems faced by small farmers in Chandruguda Mandal of Khannam District, Andhra Pradesh. This study provides an important information and knowledge to individual farmer desiring to bring about improvement in their operation of groundnut crop. This study, being one of the farm management investigations can give not only general information regarding the selected mandal but also serve as basis for sound agricultural policies and other development programmes in relation to agriculture.

## SAMPLING

The multistage random sampling was adopted. This sampling consists of three stages.

- (i) Selection of mandal
  - (ii) Selection of villages
  - (iii) Selection of cultivators
- 

## SELECTION OF MANDAL

The selection of mandal was purposive and mandal represents the district mostly. The nearness and easy accessibility of the mandal for conducting survey was also one of the factors that contributed to the selection particularly. A preliminary survey was conducted at mandal level in order to get secondary information and also for reviewing

the situation. This helps in preparing final questionnaire and schedules for interviewing the farmers.

#### DESCRIPTION OF MANDAL

The mandal lies in the district of Khammam. It comes under Nethagodem taluka. The total area of the mandal is 20,496 acres. The average rainfall of the region is 40-70 cm. Rainfall is mostly depend upon south-west monsoons.

#### DESCRIPTION OF THE MANDAL

Table 3.1 Details of Chandragunda Mandal

S.No.	Particulars	Information
1.	Total geographical area	25656 ha.
2.	Total population	1,32000
3.	Total number of villages	28
4.	Co-operative societies	5
5.	Veterinary hospitals	6
6.	Primary schools	32
7.	High schools	8
8.	Junior colleges	1
9.	Post-offices	20
10.	Total number of households	26975
11.	Agricultural families	6010

Source : From Mandal Office.



Table 3.2 Land utilization in Chandragunda Mandal

S.No.	Particulars	Area in hectares
1.	Total area	20496
2.	Net area sown	16496
3.	Double cropped area	4000
4.	Cultivated fallow land	500
5.	Non-agricultural usable land	2450
6.	Net area irrigated	7232

## SELECTION OF VILLAGES

From Mandal records, a list of villages in the Mandal was taken and the villages were arranged alphabetical order. Five villages were then selected randomly through random table.

Table 3.3 Name of the selected villages

S.No.	Selected villages
1.	Annaparaddipalli
2.	Chandragunda
3.	Naddhukur
4.	Rajapuram
5.	Terragunta

### SELECTION OF CULTIVATORS

The farmers were classified into three groups, basing on their land-holding. They are as follow.

**(a) GROUP-I FARMERS (SMALL)**

Cultivators having less than 2 hectares.

**(b) GROUP-II FARMERS (MEDIUM)**

Cultivators having 2 hectares to 4 hectares.

**(c) GROUP-III FARMERS (LARGE)**

Farmers having 4 hectares and above.

**Table 3.4 Different size-group of farmers**

S.No.	Name of the Village	Small farmers	Medium farmers	Large farmers
1.	Annapareddipalli	3	2	1
2.	Chandrugunda	2	3	2
3.	Madukur	2	3	1
4.	Rajapuram	2	2	2
5.	Yerragunta	4	2	4
<b>Total</b>		<b>13</b>	<b>12</b>	<b>10</b>

### METHOD OF ENQUIRY

Survey method was used for collection of data. The farmers were interviewed with the help of schedule, a proforma of which is given in Appendix.



### PERIOD OF ENQUIRY

This related to agriculture year 1988-89.

### METHOD OF ANALYSIS

The tabular method was used for the analysis and interpretation of results.

### COST CONCEPT

We have adopted the following method to compute the cost of cultivation :-

1. Cost  $A_1$  : The cost  $A_1$  includes :-

- (a) Charges of hired human labour
- (b) Charges of bullock labour
- (c) Cost of seed
- (d) Cost of manures and fertilizers
- (e) Cost of pesticides
- (f) Cost of irrigation charges
- (g) Land revenue
- (h) Depreciation

2. Cost  $A_2$  -

Cost  $A_1$  + Rent paid for leased in land.

3. Cost B -

Cost  $A_2$  + Rental value of owned land + interest on fixed capital.

4. Cost C -

Cost B + imputed value of family labour

# MEASURES OF FARM PROFIT

## 1. Net income or net profit :-

It is calculated by subtracting total expenditure or Cost C from gross income.

Net income = Gross income - all expenses.

## 2. Family labour income

It is return to the labour of operator and his family.

It is obtained by deducting Cost 'B' from gross income or adding the value of imputed labour to net income.

Gross income - Cost 'B' = Family labour income.

## 3. Farm business income

Obtained from deducting Cost 'A' from gross income.

Gross income - Cost 'A' = Farm business income.

## 4. Farm investment income

It is computed by adding the rental value of owned land and interest on fixed capital to net income.

Farm investment income = Net income + interest on fixed capital  
rental value of owned land



## **CHAPTER IV**

## RESULTS AND DISCUSSION

The present enquiry pertains to study the economics of production and marketing of groundnut and with special emphasis problems faced by small farmers in the cultivation of groundnut in Chandrugunda mandal of Khanna, District, Andhra Pradesh. The first attempt has been made to analyse the cost of cultivation of groundnut under rainfed conditions. The second part of the study consists with the marketing of groundnut. The Third Part of the study deals with the problems face by small farmers in the cultivation of groundnut.

### STRUCTURE OF FARM FAMILIES

The study of farm family is an important aspect of any study concerning farmers. The farm business depends upon the availability of land, labour, capital and management.

The following table shows the distribution of age, sex and family size according to the different size groups.



Table 4.1 : DETAILS OF SAMPLE FAMILIES

Size groups	Average size of family	Percentage of		Percentage of age groups		
		Male	Female	Below 14 years	14-59 years	Above 59 years
Group I	4.54 (100)	2.46 (54.19)	2.08 (45.81)	1.06 (23.79)	3.15 (69.39)	0.31 (6.83)
Group II	5.00 (100)	2.5 (50)	2.5 (50)	0.67 (13.4)	4.09 (81.6)	0.25 (5.0)
Group III	7.00 (100)	3.9 (55.71)	3.1 (44.29)	1.1 (15.71)	5.4 (77.14)	0.5 (7.15)
Sample Average	5.4 (100)	2.99 (53.52)	2.51 (46.48)	0.95 (17.59)	4.11 (76.11)	0.34 (6.30)

The above table shows that the average size of family was increased with the increase in the size of holding. The percentage of average males is more than the average of females. More than 70 percent of the people in all groups are in the age group of 14-59 years.

Note : Figures in Parentheses show the percentage to total

# **LITERACY OF SAMPLE FARMERS**

The literacy of the farmers is often a factor that affect the quality of farm business. It helps the farmers to be better informed about the prices, technical improvement etc. which should affect the farm. Literacywise composition of the families is given in the table no. 4.2.

**Table 4.2. : LITERACY OF SAMPLE FARMERS**

Size groups	Average size of family	Percentage of liter- acy			Grade te and above	Total lite- acy	Total lite- acy
		Primary	Middle	High- School and Inter			
Group I	4.54 (100)	1.31 (28.86)	0.54 (11.89)	0.46 (10.13)	0.15 (3.30)	2.46 (54.18)	2.08 (45.82)
Group II	5.00 (100)	0.58 (11.6)	0.17 (3.4)	2.58 (51.6)	0.58 (11.6)	3.91 (78.2)	1.09 (21.8)
Group III	7.00 (100)	1.4 (20.0)	0.4 (5.71)	2.2 (31.43)	2.0 (28.57)	5.8 (82.86)	1.2 (17.14)
Sample average	5.4 (100)	1.08 (20.00)	0.35 (6.48)	1.66 (30.74)	0.92 (15.16)	3.91 (72.39)	1.49 (27.6)

**Note :** Figures in parentheses show the percentage to total.



Table No. 4.2 shows that as the size of farm increase the proportion of literate persons. As the size of farm increase the percentage of literate persons also increase. The percentage of graduate population is also increased from first size group to third size group. Average percentage of literacy was 72.38 percentage and illiteracy was 27.62 percentage. As per sample average, the percentage of literate persons is more than that of the illiterate persons. Therefore, literate groups decision making may be more scientific.

#### OCCUPATION

Agriculture is main occupation for more than 7% of the population in India. Some cultivator have more than one occupation. The following table shows the occupational distribution of the selected families.

TABLE 4.3: OCCUPATIONAL DISTRIBUTION OF SAMPLE FARMERS

Size groups	Average size of family	Percentage of farmers having		
		one occupation	two occupations	three occupations
Groups I	4.54 (100)	0.85 (84.62)	0.15 (15.38)	-
Group II	5.00 (100)	0.58 (58.33)	0.34 (33.33)	0.08 (8.33)
Group III	7.00 (100)	0.5 (50.00)	0.3 (30.00)	0.2 (20.00)
Sample average	5.4 (100)	0.66 (66.00)	0.26 (26.00)	0.8 (8.00)

The above table 4.3 reveals that the maximum percentage of farmers follow only one occupation. The number of occupations increased with the increase in the size of holding. This is mainly due to increase in the income. As per sample average, one occupation farmers have 66 percentage, two occupations farmers have 26 percentage and three occupations farmers have 8 percentage.

Note : Figures in Parentheses show the percentage to total.



## LAND UTILIZATION OF SAMPLE FARMERS

One of the most important limiting factor of farm business is the land utilization of land gives an idea about the land under cultivation and intensity of cropping. The cropping intensity is an indicator of the efficient use of land, but it is depend upon various resource facilities. The following table gives the cropping intensity of different groups of cultivators.

Table No. 4.4 : LAND UTILIZATION OF SAMPLE FARMERS

Size groups	Aver- age size of holding	Aver- age numbers of frag- ment	Total oper- ated	Area in hectares			
				Net sown	Double sown	Gross sown	Cropping inten- sity %
Group I	1.84	3.39	1.84	1.84	1.01	2.85	156.44
Group II	3.75	5.03	3.75	3.75	1.75	5.50	146.37
Group III	8.9	7.00	8.90	8.75	3.90	12.65	142.32
	4.51	5.00	4.26	4.47	2.09	6.53	148.93

The number of fragments increasing with increase in the size of holding. The intensity of cropping decreased from first size group to third size group. Double cropped area is also increasing with increase in the size of holding. The net area sown in first size group was 1.84 hectares and the gross sown area was 2.85 hectares. In the second size group net sown area was 3.75 hectares and the gross sown area was 5.50 hectares. In the third size group net sown area was 8.75 hectares and gross sown area was 12.65 hectares.

#### CROPPING PATTERN :

Cropping pattern shows the cropping sequence in the selected area and preference to crops. The following table reveals the crop ring pattern.



Table 4.5 - Geopline Rating

size groups	Average size of holding	Kharif crops				Rabi crops				Current follow
		Paddy	Ground- nut	Cotton	Arhar	Ground- nut	Sunhemp	Til	Tobacco	
Group I	1.94 (100)	1.26 (69.48)	0.44 (23.91)	0.02 (1.09)	0.12 (6.52)	0.72 (11.24)	0.42 (22.34)	0.06 (4.35)	1.06 (57.61)	
Group II	3.75 (100)	2.63 (70.13)	0.75 (20.00)	0.27 (7.20)	0.10 (2.67)	0.36 (9.6)	0.54 (14.4)	0.29 (7.73)	2.56 (63.27)	
Group III	9.90 (100)	5.95 (66.85)	1.39 (15.62)	0.9 (10.11)	0.66 (7.42)	0.53 (7.08)	1.00 (11.24)	0.32 (3.60)	6.95 (79.09)	
sample average	4.51 (100)	3.07 (69.07)	0.82 (18.18)	0.36 (7.99)	0.26 (5.77)	0.39 (8.65)	0.63 (13.97)	0.21 (4.66)	3.25 (72.05)	

Note: Figures in parentheses indicate the percentage to total.

Table no. 4.5 shows that the preference of sample for various crops with available resources. Paddy occupied significant place in kharif crops and it is followed by groundnut crop. The other crops are cotton and arhar. Sunhemp occupied first place in the Rabi crops and it is followed by groundnut crop. Groundnut cultivated in both seasons kharif and rabi. After paddy groundnut is the most important crops in the selected area. Thus it was necessary to study about groundnut cultivation and problems faced by small farmers.

#### **COST OF CULTIVATION OF GROUNDNUT**

The cost of cultivation of groundnut for different size groups is given in the following table.

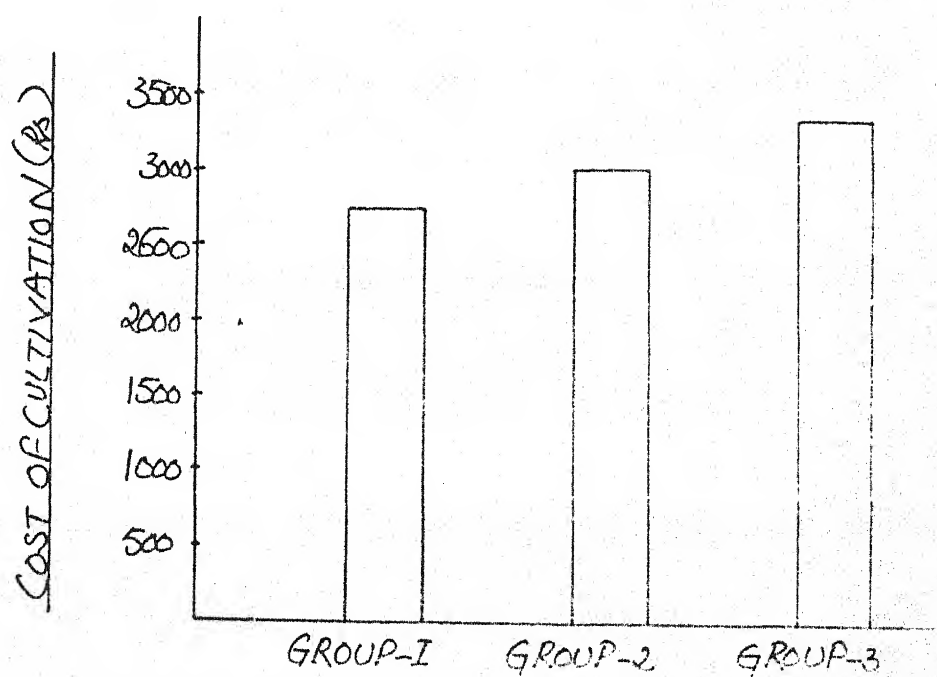


Table 4.6: Itemwise per hectare cost of cultivation of groundnut

(In rupees)

Sl. No.	Particulars	Group I	Group II	Group III	Sample average
1.	Human labour				
	(a) Family labour	344.62 (12.58)	263.34 (8.72)	117.00 (3.49)	251.72 (8.36)
	(b) Hired labour	202.31 (7.39)	321.67 (10.65)	483.00 (14.43)	323.43 (10.75)
2.	Bullock labour	303.85 (11.09)	325.00 (10.76)	345 (10.31)	322.80 (10.73)
3.	Seed	469.46 (17.14)	429.58 (14.23)	520.00 (15.53)	470.23 (15.63)
4.	Manures and fertilizers	532.31 (19.43)	540.83 (17.92)	606.50 (18.12)	556.43 (18.49)
5.	Irrigation	-	-	-	-
6.	Pesticides	57.69 (2.09)	160.00 (5.30)	172.00 (5.14)	125.41 (4.17)
7.	Interest on working capital	229.22 (8.37)	244.86 (8.12)	269.22 (8.04)	245.01 (8.17)
8.	Interest on fixed capital	156.42 (5.71)	208.18 (6.86)	263.90 (7.88)	204.53 (6.80)
9.	Land revenue	-	-	-	-
10.	Depreciation	114.13 (4.17)	183.00 (6.06)	231.19 (6.90)	171.16 (5.69)
11.	Rental value of own land	329.23 (12.02)	343.73 (11.38)	342.00 (10.19)	337.66 (11.22)
	Total	2739.24 (100)	3019.24 (100)	3349.72 (100)	3009.38 (100)

Note : Figures in parentheses show the percentage to total.



COST OF CULTIVATION OF GROUNDNUT  
PER HECTARE.



Table No. 46 reveals that the percentage of cost of incurred family labour decreased from first size group to third size group and the cost of incurred hired labour increased from first size group to third size group. The fertiliser consumption increased from first size group to third size group. The pesticides consumption is also increased from small farmers to large farmers.

#### COST CONCEPT :

The following table shows the cost concept of different size groups.

Table-4.7

Per hectare cost concept of different size groups on groundnut

Sl. no.	Cost concept	Group I	Group II	Group III	Sample average
1.	Cost A <sub>1</sub>	1903.97	2204.94	2626.82	2246.91
2.	Cost A <sub>2</sub>	1908.97	2204.94	2626.82	2246.91
3.	Cost B	2394.62	2755.87	3232.72	2794.40
4.	Cost C	2739.24	3019.24	3343.72	3035.73

There was no leased in land with any of the sample farmers. Hence cost  $A_1$  and cost  $A_2$  are same.

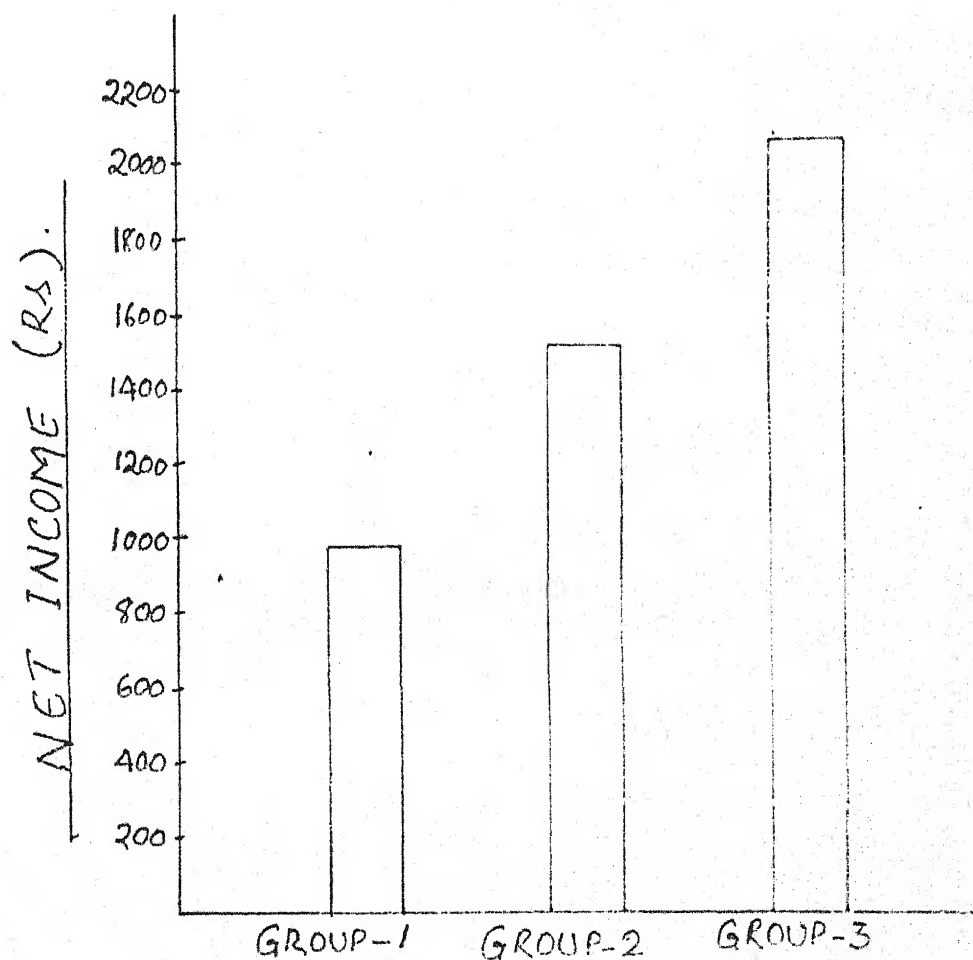
It is clear from the table 4.7 that the cost of cultivation of third size group is higher than that of second and first size group. From the above table 4.7 can be seen that the cost 'c' in first size group Rs. 2739.24, in second size group Rs. 3019.24 and Rs. 3349.72 in third size group. Cost 'B' per hectare in first size group Rs. 2394.62 in second size group Rs. 2755.87 and Rs. 3232.72 in third size group. Cost ' $A_1$ ' and cost  $A_2$  per hectare in first size group Rs. 1908.97, in second size group 2204.94 and Rs. 2626.82 in third size group. Third size group farmers are also used more inputs than the small size groups.

#### INPUT-OUTPUT RATIO



Table 4.9 : Yield and output per hectare of groundnut crop according to different size groups

Size groups	Yield in kg/ha	Value		Gross income	Total inputs	Net income	Input output ratio
		Groundnut product	By- product				
I group	6.93	13.54	3465.39	270.77	3736.16	2739.23	1: 1.36
II group	8.48	14.83	4241.67	296.65	4538.34	3019.24	1: 1.50
III group	10.19	15.60	5092.50	312.00	5404.50	3348.72	1: 1.61
Sample average	8.39	14.57	4196.43	291.43	4487.86	3009.37	1: 1.49



NET INCOME OF GROUNDNUT

PER HECTARE



## MEASURES OF FARM PROFIT

Table no. 4.9 : Measures of farm profit per hectare of groundnut

Size groups	Farm investment income	Family labour income	Farm business income
Group I	1482.58	1341.54	1827.19
Group II	2073.03	1782.47	2333.34
Group III	2661.68	2171.78	2777.68
Sample average	2021.91	1729.93	2272.30

Table no. 4.9 reveals that all measures of farm profit per hectare of groundnut crop. The farm investment income of third size group was more than second and first size group. The farm business income of third size group was more than second and first size group.

The sample average of farm business income was Rs. 2272.30 and farm investment income Rs. 2021.91 and family labour income was Rs. 1729.93.

## MARKETING

Agricultural marketing in a broad sense connotes a series of activities involved in moving the goods from the part of production to the point of consumption. It includes all the activities involved in the creation of time place, form and possession of utility. The agricultural marketing system is a link between the farm and non farm sectors. The basic objectives of an ideal and efficient marketing are to ensure remunerative prices to the producers and reduction in marketing costs and margins.

The margin between the prices received by growers and prices paid by the consumers for groundnut includes costs of marketing such as transporting, storage, grading, sorting and processing. The cost also includes market charges, sales tax, etc. These margins and costs are influenced by the operational efficiency of different market functions and influence returns to the growers on the one hand and cost of consumer on the other.

The most common channel found in the existing marketing was producer - village merchant - wholesaler (miller) retailer- consumer. In this channel producers are sell their product to village merchant and village



merchant to whole seller. The other channels are.

Producer - Wholeseller - retailer - consumers  
and Producer - Miller - wholeseller - Retailer - Consumer.

In between producer and wholeseller village merchant is linkman-wholeseller is the main person who is responsible for the final product and finally retailer who is bridge in between wholeseller and consumer. Marketable surplus of different size groups listed in the following table.

Table No. 4.10 : Marketable surplus of different size groups

Size groups	Total output Qtl.	<u>Total consumed</u> Farm consumes/ seed purpose	Marketable surplus Qtl.
Group I	6.93 (100)	1.22 (17.61)	5.71 (82.39)
Group II	9.43 (100)	0.52 (6.17)	7.91 (93.83)
Group III	10.19 (100)	0.39 (3.83)	9.8 (96.17)

Note : Figures in parentheses show percentage to total.

The above table reveals the marketable surplus of different size groups. The marketable surplus was increase from first size group to third size group. The percentage of marketable surplus was 82.39% in first size group, 93.93% in second size group and 96.17% in third size group.

#### MARKETING COSTS AND MARGINS

Price spread through the channels are given in the following table.

Table no. 4-11 Costs and margins in groundnut marketing per quintal  
(In rupees)

Sl.no.	Particulars	Group I	Group II	Group III	Sample average
1	2	3	4	5	6
1.	Net price received by farmers	500 (90.03)	500.42 (90.03)	500 (90.78)	500.14 (90.24)
2.	Charges paid by producer	-	-	-	-
3.	Price received by producer/purchase price of village-merchant	500 (90.03)	500.42 (90.03)	500 (90.78)	500.14 (90.24)
4.	Charges paid by village-merchant	3.91 (0.69)	3.91 (0.70)	3.51 (0.63)	3.76 (0.69)
	(a) Transport	1.65 (0.30)	1.79 (0.32)	1.73 (0.31)	1.72 (0.31)

Table conti...



1	2	3	4	5	6
	(b) Loading & Unloading	1.36 (0.25)	1.29 (0.23)	0.95 (0.17)	1.22 (0.22)
	(c) Weighing	0.42 (0.08)	0.29 (0.05)	0.50 (0.09)	0.40 (0.07)
	(d) Octroi	0.19 (0.03)	0.20 (0.04)	0.10 (0.02)	0.17 (0.03)
	(e) Others	0.19 (0.03)	0.34 (0.06)	0.23 (0.04)	0.25 (0.05)
5.	Margin of village merchant	6.96 (1.25)	7.58 (1.36)	8.0 (1.46)	7.47 (1.35)
6.	Price recovered by village-merchant/whole sale purchase price	510.77 (91.97)	511.91 (92.10)	511.5 (92.87)	511.37 (92.27)
7.	Charges paid by wholesaler	7.69 (1.38)	9.50 (1.71)	9.6 (1.74)	8.96 (1.60)
8.	Margin of whole-sales	36.92 (6.65)	34.42 (6.19)	29.7 (5.39)	34.0 (6.13)
9.	Price received by wholesaler/purchase price of retailer	555.39 (100)	555.83 (100)	550.8 (100)	554.23 (100)

The above table shows that the cost and margins in groundnut marketing of different size groups. The producer

share in consumer's rupee was 90.03% in first size group, 90.03% in second size group and 90.78% in third size group. The per qtl. received by the producer was Rs. 500 in first size group, Rs. 500.42 in second size group and Rs. 500 in third size group.

Cost of transportation was the major item of expenses incurred by the village merchant in selling the produce to wholesaler. The average costs incurred by the village merchant was Rs. 3.76 per quintal. The average costs incurred by the whole sales was Rs. 3.86 per quintal.

The village merchant margin was Rs. 6.96 per qtl. in first size group, Rs. 7.58 per qtl. in second size group and Rs. 8.0 per qtl. in third size group. The wholeseller margin was Rs. 36.92 per qtl. in first size group, Rs. 34.42 per qtl. in second size group and Rs. 29.7 per qtl. in third size group.

The producer sold groundnut to village merchant at Rs. 500.14/qtl. village merchant sold to wholeseller at Rs. 511.37 per qtl. retaining the margin & profit of Rs. 7.47 per qtl. Further wholeseller sold groundnut to others at Rs. 554.23 per qtl. retaining the margin & profit of Rs. 34 per qtl.



Table No. 4.12 Market arrivals and prices of ground nut during 1988-89

Sl. no.	Months	Arrivals in 00 (Oct) (x)	Price in .00 Rs/Oct.	Deviation from 16.0 (vi)	Deviation from 5.0 vi	vi <sup>2</sup>	vi <sup>2</sup>	vi vi
1.	Jan.	30.0	4.6	-14.0	+0.4	196	0.16	-5.6
2.	Feb.	24.0	4.8	- 9.0	+0.2	64	0.04	-1.6
3.	March	16.0	5.1	0.0	-0.1	0	0.01	0.0
4.	April	14.0	5.2	+ 2.0	-0.2	4	0.04	-0.4
5.	May	10.0	5.4	+ 6.0	-0.4	36	0.16	-2.4
6.	June	5.0	5.0	+11.0	-0.8	121	0.64	-0.8
7.	July	5.0	5.9	+11.0	-0.9	121	0.81	-0.9
8.	Aug.	9.0	5.5	+ 8.0	-0.5	64	0.25	-4.0
9.	Sep.	7.0	5.5	+ 9.0	-0.5	49	0.25	-4.5
10.	Oct.	12.0	5.0	+ 4.0	0.0	16	0.00	0.0
11.	Nov.	16.0	5.0	0.0	0.0	0	0.00	0.00
12.	Dec.	28.0	4.9	-12.0	+0.1	144	0.01	-1.2
TOTAL			vi = 17.0	vi = 9.7	vi <sup>2</sup> = 8.47	vi <sup>2</sup> = 2.37	vi vi = -38.4	

$$\begin{aligned}
 xy &= \sum u_i v_i \\
 &= \frac{\sum (u_i^2 - n \bar{u}^2)}{\sqrt{\sum (u_i^2 - n \bar{u}^2)}} \quad \frac{\sum (v_i^2 - n \bar{v}^2)}{\sqrt{\sum (v_i^2 - n \bar{v}^2)}} \\
 &= \frac{-39.4 \times 12 (1.42) (-0.23)}{\sqrt{(947 - 12(1.42)^2)} \sqrt{(2.37 - 12(-0.23)^2)}} \\
 &= \frac{-39.4 \times 3.92}{\sqrt{822.8} \sqrt{(1.74)}} \\
 &= \frac{-34.49}{28.69 \times 1.32} \\
 &= \frac{-34.49}{37.87} \\
 &= -0.91
 \end{aligned}$$

Correlation between monthly arrivals and prices of groundnut was -0.91.

It indicates the monthly arrivals and the prices of local variety of <sup>groundnut</sup> are negatively correlated. On the other words, the prices increases then arrivals decreases or prices decreases then arrival increases.



## PROBLEMS

(1) Irrigation is the main problem for groundnut cultivators. Kharif groundnut crop depends upon the favourable monsoon conditions. If the climatic conditions are not favourable or due to intermittent rains, the yield rates are declined. So it was the main problem for groundnut cultivators. There was a strong association between rainfall and total cropped area.

(2) Lack of credit facilities at the time of sowing is another problem for groundnut cultivators. It was found that no help was obtained from institutions and agencies for all size of farmers. This was the main drawback in the scientific cultivation of important crops.

(3) Non availability of good seeds was another obstacle. It was found that all farmers were sown local variety. This was the main cause for poor yield.

(4) High seed costs and high labour requirements is hindrance for groundnut cultivation. Generally small farmers are poor. So they are facing problems to purchase good quality seeds.

(5) Lack of land registration facilities is the main cause to take loans from credit agencies. The Govt. kept the district under agency area and removed land registration Act.

So the farmers have no documents to mortgage the land for sanction the loans. This is the main drawback to take loans from banks and other institutions.

(6) Marketing facilities are not good in the selected area. Hundred percent of groundnut marketed output had been through middle-men. So the farmers have not got fair price for the their product some times they were got hundred rupees less than the market price per quintal. This is only due to the lack of marketing facilities.

(7) It was also found that the low yield is due to the lack of knowledge about oil seed production prospects. It was found that block officials do not communicate the farmers about any improvement. Agriculture extension services under the oil seeds development programme include problem oriented demonstration plots, distribution of minikits and mass ground spraying was not found in the selected area.



# **CHAPTER V**

## SUMMARY AND CONCLUSION

Groundnut is the important oil-seed crop in India. A.P. occupies a major position in groundnut growing states.

The present study pertains to study of production and marketing of groundnut and problems faced by small farmers in Chandrugunda Mandal in Khosman District, Andhra Pradesh. The main objective of the study were:-

1. To calculate the cost of cultivation of groundnut.
2. To calculate net profit per hectare.
3. To study the existing market channels in the selected area.
4. To identify the problems faced by small farmers and suggest measures for its improvement.

Five villages were selected in the mandal for the enquiry. The cultivators were grouped into three different stratified sets depending upon the size of holding and 35 farmers were selected from the stratified groups. Information was gathered by survey method from the cultivators, contacting them with the schedule.

The average size of holding of group I, group II and group III were 1.84 ha, 3.75 ha and 8.9 hectares respectively. Average size of the family was 4.54, 5.00 and 7.00 respectively group I, group II and group III.

It was noted that 76% of the people came under the age-group of 14-59 years. The average literacy percentage



was 72.38% and the illiteracy percentage was 27.62%. The paddy and groundnut was highest area occupied by total area in respective seasons.

The total cost of cultivation of groundnut in three size-groups are Rs. 2739.24, and Rs. 3348.72 respectively. The total gross income of groundnut in three different size-groups are Rs. 3736.16, Rs. 4938.34 and Rs. 5404.50 respectively. The net income of first size-group was Rs. 996.93, Rs. 1519.10 in second size-group and Rs. 2055.78 in third size-group. The net income was increased from first size-group to third size-group. The cost of cultivation was also increased from first size-group to third size-group. This is due to the more inputs used in the large-size group. It was also found that the use of family labour was decreased from first size-group to third size-group.

The most common channel found in the existing market was producer - village merchant - wholesaler (miller) - retailer - consumer. The producer's share in consumer's rupee was 90.65% in first size-group, 90.05% in second size-group and 90.78% in third size-group. The margin of village merchant was 1.25% in first size-group, 1.36% in second size-group and 1.46 in third size-group. The wholesaler was 6.65% in first size-group, 6.19% in second size-group and 5.39% in the third size-group.

Main problems of the groundnut cultivators are - (1) lack of irrigation facilities, (2) non-availability of improved

seed and high seed cost (3) Lack of credit facilities at the time of sowing (4) Lack of land registration facilities, and (5) lack of market facilities. These are main problems were found in the survey.

#### SUGGESTIONS

- (1) The government should increase the irrigation facilities.
  - (2) The government should provide improved seed to farmers.
  - (3) Co-operative credit facilities should be made available to farmers in proper time.
  - (4) The government should provide land registration facilities.
  - (5) The regulated markets should be established at mandal level.
  - (5) Extension activities should be strengthened to acquaint the farmers with the latest technology for the cultivation of oil-seed crops.
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# APPENDIX

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## SCHEDULE AND QUESTIONNAIRE

### I. DETAILS ABOUT THE CULTIVATOR AND HIS FAMILY

1. Name of the cultivator :
2. Main occupation :  
subsidiary occupation :
3. Caste :
4. Age :

Sl.	Name	Sex	Age	Relation- ship with the head of the family	Mari- tal Sta- tus	<u>If earner</u> Main Subsi- occu- diary pation occupa- tion		If not earner reasons	Lit- er- acy	Rema
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### II. INVENTORY OF LAND

1. Village :
2. Tehsil :
3. Cultivator:
4. Owned lands:
5. Rented in :
5. Total cultivated areas:

Sl. No.	Identi- fication of fragmented plot	Area (Ms.)	Present value of land	Culti- vable	Soil type	Kind of tenure	Source of Irri- gation	Reve- nue	Re- mark
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## III. CROPPING SCHEME

Sl. No.	Plot Area in No.	Kind of soil	Cropping Patterns			Remarks
			Kharif	Rabi	Zaid	

## IV. SCHEDULE FOR FIXED COST AND DEPRECIATION

Sl. No.	Particulars	Fixed cost (Rs.)	Depreciation (Rs.)
A	Land		
B	Building		
1.			
2.			
3.			
4.			
C	Live stock		
1.			
2.			
3.			
4.			
D	Implements		
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
Total			



IV. COST OF PRODUCTION SCHEDULE FOR CROPS

Previous Crop :

Variety :

FIELD NO. :

Area :

Cash expenses

Tractor

Bullock

Human labour

day

M.L.

Qty. Rate Value F.L.

Material Used

Items

Tractor

Mis.

labour

PHD

PHD

PHD

PHD

PHD

PHD

PHD

PHD

1

2

3

4

5

6

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1. PREPARATORY :

Tillage  
Ploughing  
Planking  
Any other

2. Pre-Sowing  
Irrigation

3. Ridging

4. Sowing

5. Seed (kg/acre)

6. Seed Treatment (Gram/  
litre)

7. Fertilizers

a) Nitrogenous (kgs.)  
b) Phosphatic (kgs.)  
c) Potassic (kgs.)  
d) F.Y.M. (Cart loads).





A STUDY OF MARKETING**(A) GENERAL INFORMATION :**

- (i) Name Shri Dated:  
 (ii) son of Shri  
 (iii) Village  
 (iv) Name of nearest market  
 (v) Distance Km  
 (vi) Is it connected with Metalled Road? YES/NO  
 If no, Distance of Kachha Road Km.

**(B) PROCEDURE FOR SALE :**

Agency	Quantity sold (Qtl)	Period of sale (mths)	Price received (Rs. per Qtl.)
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**(a) VILLAGE SALE**

- (i) Village Bania  
 (ii) Local Trader  
 (iii) Any other (specify).

**(b) SALE IN THE MARKET**

- (i) Primary wholeseller  
 (ii) Secondary wholeseller  
 (iii) Cooperative marketing Society  
 (iv) Agents of Bidders/Winners.

**(E) SPECIFY Reasons for village sale :**

- (a) Convenience
- (b) Lack of Transport
- (c) Debt obligation
- (d) Lack of marketing information
- (e) Higher Prices
- (f) Large number of intermediaries
- (g) Malpractices in the market

**(F) SORTING & GRADING OF THE PRODUCE :**

- (i) Is the produce graded before being sent to the Market? YES/NO
- (ii) If yes, Factor taken into account while grading.
- (iii) Do you get higher price for the graded produce? YES/NO
- (iv) What is the price differential per quintal?
 

Price of different packings	Rs.
Price of 1st picking	Rs.
Price of 2nd picking	Rs.
Price of 3rd & 4th picking	Rs.



(K) Marketing Charges :

ITEMS	Rate/Qtl. (Rs.)	Total charges (Rs.)
(i) Transportation Charges		
(ii) Octroi		
(iii) Cleaning charges		
(iv) Unloading		
(v) Weighment		
(vi) Commission		
(vii) Any other (specify)		

(S) Do you like to take the produce to the cooperative marketing society?

(a) Give the reasons for taking/not taking the produce to the cooperative marketing society:

(K) Was any Malpractice observed by you in the Market? If yes, specify:

Suggestions for improving crop marketing efficiency:

	QUANTITY	RATE	TOTAL VALUE
(A) Total crop produced			
(B) Per Acre Production			
(C) Production of Crop sticks per Acre			
(D) Total cost per Acre			
(E) Cost of production per Qtl.			

Producer's Share in Consumer's rupee

Cultivators name		Quantity brought	Price per quintal	Charges borne by producers		Net price received by producer		Wholesale purchase price/gtl.		Charges borne by wholesalers		Net price received by producer		Retailer purchase price gtl.		Charges borne by retailer		Retailers sale price gtl.		Net price received by retailers		Producer's share in consumer's rupee		REMARKS
				Transport				Transport																
				Octroi				Octroi																
				Paidedari				Paidedari																
				Taxial				Taxial																
				Dharmada				Dharmada																
				Commission				Commission																
				Others				Others																